Patent claims:

1. Process for the preparation of inorganic materials, characterized in that at least one salt solution containing at least one substance is initially introduced into a vessel and optionally is brought together with at least one solid and these are mixed with one another, at least one further salt solution containing at least one substance is added, as a result of which an inorganic substance precipitates out because of its lower solubility product, and at least one further substance remains in the solution, optionally at least one further salt solution containing at least one substance, or a further solvent is added, the suspension obtained is frozen or solidified by cooling, the uniform distribution of solid and salt solution being retained in the suspension and a sedimentation of the solid being prevented, the solvent is sublimed by application of a vacuum, the suspension being dried, optionally the solid obtained is heat-treated, and the solid obtained or the material obtained is characterized in respect of its morphology, size, composition, properties or a combination of these things, and optionally these process steps are repeated in order to prepare and characterize a plurality of material samples in the form of a library.

2. Process according to claim 1, characterized in that the process steps are carried out at least partly in parallel.

3. Process according to claims 1 and 2, characterized in that the solids obtained are tested for their catalytic activity.

4. Device for carrying out the process according to claims 1 to 2 in parallel, characterized in that at least two suitable vessels are arranged in parallel such that they are immersed in a cooling medium or a cooling medium flows around them.